

عنوان مقاله:

The Prediction of Urban Physical Growth Using CA-MARKOV Model

محل انتشار:

اولین کنفرانس محیط زیست، عمران، معماری و شهرسازی (سال: 1399)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Today, most land use changes occur in urban areas due to the growing trend of population in cities and villages and the tendency for urban life. Rapid urban development in recent decades has brought about major changes in land use patterns around cities and has had many environmental and socio-economic impacts. In this study, using satellite imagery, land use changes and simulation of growth and development of Rasht city using neural network model and Markov chain automated cells. Landsat satellite images of 2000, 2008 and 2017 were used for this purpose. After image preprocessing and selecting the best band composition, the images were classified by neural network method. Then, the classified images were included in the land change modeler and the model outputs were predicted by CA-MARCOVE for 2027. The results obtained between 2000 and 2017 show that the changes in urban, paddy and forest areas were 9041.87, 7841.03 and 55.78 hectares, respectively, which were positive in Rasht. Rice and forest are negative, and the forecast for 2027 by the CA-MARCOVE method also shows a significant increase in urban land use .by 14105.04 hectares in the coming years

کلمات کلیدی:

.Land Use, Satellite image, Neural network model, Markov chain auto-cells, Rasht city

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